

## BRITISH MICROPEZIDAE (DIPTERA).

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In the following account the genus *Tanypeza*, Fln., originally included in this family, but subsequently removed by Hendel, first to the Ortalidae (as a distinct subfamily), and then considered to represent a distinct family near the Micropezidae, is replaced in the Micropezidae, as representing a subfamily. I agree with Hennig (1936, *Deuts. Ent. Zeitschr.*, 28-31) that the male genitalia do not conform to the very distinctive genital characters of the group of families in which the Ortalidae are included, but show a marked agreement with the Micropezid type of genitalia, especially with some Neriinae and Taeniapterinae. In view of this and other marked resemblances to the Micropezidae, it appears a more natural arrangement to include *Tanypeza* as representing a subfamily of the Micropezidae.

Flies of this family may be recognized by their narrow shape, and often very elongate, slender, legs. There is no "break" in costa of wings either near humeral cross-vein, or at end of first (mediastinal) vein, and the subapical cell is narrowed at tip of wing. Face without vibrissae, and occiput often strongly projecting backwards behind eyes. Tibiae without preapical bristles.

The species are to be found among herbage, and on leaves of bushes, occasionally on fallen tree-trunks. They seldom fly and many have a peculiar way of walking described by Fallén as "arroganter ambulare solent." Nothing is known of the life-history of any British species, but there are records of exotic species breeding in decaying vegetable matter and rotten wood.

There are four British genera, so very distinct that they are considered to represent four different subfamilies, while the six British species of one genus (*Calobata*) have been divided among five separate subgeneric names. When it is found, however, that some characters used for these proposed subgenera are variable (e.g., number of dorso-central bristles in *petronella*), or are those of varying degrees of length (palpi and wing "stigma"), or are confined to one sex, or occur in other (so-called) subgenera in different combinations, it is very doubtful whether they are of greater than specific value. The proposed subgenera are therefore indicated (in brackets) but not adopted.

The generic names *Tylos*, Mg. (1800), and *Trepidaria*, Mg. (1800), have recently been suggested as earlier names for *Micropeza* and *Calobata* respectively, but the fact that it is impossible to recognize any one of the four originally included un-named species (stated by Meigen to have been European species known to him in nature) was accepted by all Dipterists for more than 100 years, and is still entirely correct. Under Opinion 46 when such recognition is impossible the generic names represent *genera dubia* and cannot be used.

The following tables and notes should make the identification of the ten British species possible.

## Table of Subfamilies and Genera.

- 1 (6). Upper half of occiput prominent and never decidedly concave.  
Vein closing anal cell not semicircularly convex exteriorly.

*Pteropleurae* bare. Only one postalar bristle. Only two scutellar bristles.

- 2 (3). No crossvein separating second basal and discal cells of wing. Costa practically bare from base to end of subcostal vein, this subcostal vein ( $R_1$ ) with small bristles on upper surface. One distinct, strong, sternopleural bristle. Occiput very prominent and postvertical bristles present. No ventral pregenital lobes in males of British species and no thoracic dorso-central bristles. At least four posterior tibiae with small bristles.
- MICROPEZINAE—MICROPEZA, Mg.
- 3 (2). Crossvein present between second basal and discal cells. Costa setulose to base. One—two (or even three) pairs of dorso-central bristles. Usually no single strong sternopleural bristle though often a fan of finer bristly hairs. Males with ventral abdominal lobes.
- 4 (5). Postvertical bristles present. Clypeus strongly developed and projecting, shining black. Arista bare. Subcostal vein with a few tiny bristles on upper surface about base. Tibiae with small bristles. Remarkably distinct, large, black, species, with dark bands on wings, and legs mainly black, with (in strong contrast) first 2-3 joints of front, and first joint of hind, tarsi, whitish-yellow.
- TAENIAPTERINAE—RAINERIA, Rdi.
- 5 (4). Postvertical bristles absent. Clypeus almost hidden in mouth-opening. Arista distinctly pubescent or subplumose. Subcostal vein bare. Tibiae without small bristles, clothed only with fine hairs. Usually greyish species with yellow legs and no bands on wings.
- CALOBATINAE—CALOBATA, Mg.
- 6 (1). Upper half of occiput very concave, with narrow postocular orbits. Vein closing anal cell strongly convex exteriorly. *Pteropleurae* hairy. Subcostal vein obviously setose. Postvertical and humeral bristles present. Two postalar bristles. Four scutellar bristles.
- TANYPEZINAE—TANYPEZA, Fln.

#### MICROPEZA, Meigen.

##### Table of British Species.

- 1 (2). Smaller, mainly black species. Vertex and occiput black. Thorax practically entirely black. Male hypopygium mainly black.
- 5-6.5 mm. (Female the larger.) Hindmargin of abdominal segments only obscurely yellowish. Venter darkened. Four posterior coxae somewhat darkened. Hind femora with only a few minute hairs behind about base.
- Widely distributed but not common. *corrigiolata*, L.
- 2 (1). Larger, black and yellow species. Vertex and occiput streaked and spotted with yellow. Sidemargins of thoracic disc, and lower part of pleurae, yellow. Male hypopygium mainly yellow.
- 6-8.5 mm. (Female the larger.) Disc of thorax with three broad (confluent or almost confluent) dark stripes, side ones abbreviated in front. Venter and hindmargin of abdominal tergites obviously yellow. All coxae yellow. Hind femora of male distinctly hairy behind about base.

Locally common. I have records from Surrey, Suffolk, and Culbin Sands near Forres (Scotland), where it was common in July 1933 and August 1935.

*lateralis*, Mg.

RAINERIA, Rondani.

*R. calceata*, Fln., is a very distinct species first captured in this country by Mr H. Donisthorpe in Windsor Forest in June and July 1930, when specimens were found on a large felled beech-tree (v. *Ent. Month. Mag.*, lxvi, 260).

CALOBATA, Meigen.

*Table of British Species.*

- 1 (6). Mediastinal and subcostal veins (first two veins in wing) ending very close together in costa (as in *Micropeza*), or distance along lower margin of costa between ends of these veins, at most, very little longer than middle crossvein.
- 2 (3). Mediastinal and subcostal veins as in *Micropeza*. Small species with short and narrow wings, mainly yellow thorax (black on front margin and scutellum) and often two dark annulations on hind femora. Whole of prothoracic episterna with hairs as well as pile. Palpi not quite extending to front of mouth opening (*Paracalobata*, Hend.).

4-5 mm. Arista only slightly pubescent about base. Whole of occiput, and frons except in front, black. Prothorax, and lower and posterior part of pleurae, black. Male ventral lobes consisting of a tubular projection from each side of fourth sternite, pointing towards rear, and sharply bent towards each other at their tips, which are dilated into rounded knobs.

I have found this species in damp ditches in marshy places in Suffolk, Cambs., and Oxfordshire, in May and June.

*ephippium*, F.

- 3 (2). Mediastinal and subcostal veins ending slightly further apart. Much larger species with longer and rather broader wings, and thorax dark but dusted greyish. Palpi very short. Prothoracic episterna with a few hairs only on lower margin above front coxae. Only one pair of dorsocentral bristles on thorax. (*Compsobata*, Cz., and *Trilophyrobata*, Hennig).
- 4 (5). Arista entirely pale yellow. Upper half of frons at least somewhat darkened. Male ventral lobes of fifth sternite curved towards each other and semitubular but dilated knob-like at tip, they are preceded by a median flat ventral projection.\* Anal " cerci " with not very long hairs. Female ovipositor without a transverse row of long hairs at tip beneath.

5-7 mm. Very much like the next species but apparently less common.

\**Trilophyrobata*, Hennig, of which *C. commutata*, Cz., was designated as type, was stated to be founded upon this character, and the presence of a more or less evident thorn-like projection on each side of base of female ovipositor. The second character is quite indistinguishable in British specimens, and appears to apply chiefly to the American species, *C. pallipes*, Say.

Has been taken in Brecknockshire, Suffolk, Westmorland, and various localities in Perthshire, in May and June. *commutata*, Cz. (*cothurnata*, Auct. nec Pnz.).

- 5 (4). Arista darkened about base. Upper half of frons yellow even on each side of ocellar triangle. Male ventral lobes similarly curved towards each other as in *commutata*, but each one much wider, especially about base, though abruptly narrowed near tip, where they are flattened out into an anterior rounded dilation and a smaller more pointed posterior tooth; they are not preceded by a median ventral projection. Anal cerci with much longer hairs, longer than cerci. Female ovipositor with a transverse row of long pale hairs at tip beneath.

5-7.5 mm. One of the commonest British species from Sussex and Devon in the South to Edinburgh in the North. Loew described this species under the name *trivialis*.

*cibaria*, L. (*cothurnata*, Pnz.).

- 6 (1). Ends of mediastinal and subcostal veins separated on costa by a space several times (at least more than twice) the length of middle crossvein. Palpi always visible, as long as mouth opening.

- 7 (8). Usually two pairs of dorsocentral bristles on thorax. Humeri and female ovipositor yellowish. Arista with very short pubescence. Thorax without shining black stripes. Prothoracic episterna bare except on ridge above front coxae. Anal vein extended to wing margin. Male without a ventral projection between hind coxae. (*Calobata*, sensu stricto.)

5-7.5 mm. Each lobe of fifth abdominal sternite in male bidentate, with a short inner, and long tubular outer, projection, curving towards base of abdomen; there is also a smaller tubular projection from each side margin of fourth sternite, and a still smaller one from each side margin of third sternite, all of which curve towards the rear.

This species is not uncommon in Scotland as far north as Golspie (Sutherland), but I can also record it from Hampshire and Suffolk. *petronella*, L.

- 8 (7). Only one pair of dorsocentral bristles. If humeri and female ovipositor yellowish, arista bearing long pubescence, and whole of prothoracic episterna bearing hairs as well as microscopic pile. Anal vein abbreviated. Male with a projection of metasternum towards the rear, between hind coxae. (*Unodacophora*, Cz.)

- 9 (10). Thorax entirely covered with greyish dust. Larger species. Second antennal joint blackish. Prothoracic episterna hairy.

6-8 mm. In mature specimens the costal area from end of radial vein to tip of wing is infuscated. Ventral lobes of male abdomen curving forwards towards base of abdomen somewhat as those on fifth sternite in *petronella*, but simple not bidentate; they appear to arise from beneath sides of fourth tergite, but are really part of fifth sternite.

This species is not uncommon in the South (Brecknockshire, Herefordshire, Cambs., and Suffolk) but I have no records north of Derbyshire.

*sellata*, Mg. (*adusta*, Lw.)

NOTE.—*C. sellata* was described from an English female. Becker reported in 1902 that the type in Meigen's Collection was in poor condition, without abdomen or tarsi, and stated that he considered it to be a light coloured specimen of *cibaria*, L. This identification has always appeared doubtful owing to Meigen's description of "Taster weiszgelb; Fühler gelb mit schwarzer Wurzel" coupled with dark humeri. The only British species with these characters is that hitherto known as *adusta*, Lw. Our British *cibaria* has yellow palpi, which are short and usually so concealed that it is most improbable Meigen would have described them, and though the second antennal joint may sometimes be a darker yellow than the third it is never blackish. Thanks to the kind co-operation of Mons. E. Seguy of the Paris Museum I have learned that the venation of the type specimen agrees with the couplet 6 (1) above, and as the humeri of *sellata* were described as "schwarz" there can be little doubt that the above synonymy is correct.

10 (9). Thorax with polished black stripes or patches. Smaller species. Second antennal joint yellow. Prothoracic episterna without hairs except on ridge above base of front coxae.

4.5-6 mm. An easily recognized species. Frons with upper half black. Shining black areas on thorax include a patch at middle in front, and two side stripes abbreviated both in front and behind. A broad grey-dusted middle stripe divides into two diverging narrow stripes in front which extend to each humerus, and widens out behind to cover the postalar calli and scutellum. The abdominal lobes in male arising from fifth sternite are similar to those of *sellata* and are situated at about half way down abdomen. Female ovipositor also resembling that of *sellata* in being more tapering in outline than in *cibaria* or *cothurnata*.

Known only from Scotland where it is not uncommon in the Spey Valley (Inverness-shire) in June and July.  
*stylifera*, Lw.

#### TANYPEZA, Fallén.

*T. longimana*, Flin. A black species with a silvery patch on vertex and each side of front of frons. Thorax with notopleural depression silvery, and pleurae with silvery patches. Palpi black, prominent and flat. Ocellar bristles small; two pairs of front-orbital bristles; only one (outer) pair of vertical bristles. Frons slightly narrower in male than in female, but *not* with eyes almost touching as stated by Hendel. Four scutellar, no sternopleural, two postalar, and one supra-alar, bristles; the anterior supra-alar bristle mentioned by Hendel *not* present. Wings with upcurved discal vein as in other members of the family.

About 6 mm. Apparently rare. I possess two specimens, both from Suffolk, the male recorded by Bloomfield (*Ent. Mo. Mag.*, 1904, p. 60), and a female taken by Col. C. G. Nurse at West Stow on 26th July 1913.

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